

SEQUENCE LISTING

<110> Chauhan, Sarita
DiCosimo, Robert
Payne, Mark
Gavagan, John
Fallon, Robert

<120> Isolation and Expression of a Gene for Nitrilase from
Acidovorax Facilis 72W

<130> BC-1032 US NA

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<150> 60/193,707
<151> March 31, 2000

<160> 32

<170> Microsoft Office 97

<210> 1
<211> 17
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Forward primer
(1F)

<220>
<223> K= G or T, M= A or C, S= G or C, Y= C or T

<400> 1
tkkmtkccsg gctaycc
17

<210> 2
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Reverse primer
(7R)

<220>
<223> S= G or C, H= A or C or T, M= A or C, R= A or G,
Y= C or T

<400> 2
ggccasshtg mrayrtg
17

<210> 3
<211> 385
<212> DNA
<213> Acidovorax facilis

[illegible][illegible][illegible][illegible]

<211> 369
 <212> PRT
 <213> Acidovorax facilis

<400> 5

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			20					25					30		
Ile	Glu	Glu	Ala	Ala	Gln	Lys	Gly	Ala	Ser	Leu	Ile	Ala	Phe	Pro	Glu
		35					40					45			
Val	Phe	Ile	Pro	Gly	Tyr	Pro	Tyr	Trp	Ala	Trp	Leu	Gly	Asp	Val	Lys
	50					55					60				
Tyr	Ser	Leu	Ser	Phe	Thr	Ser	Arg	Tyr	His	Glu	Asn	Ser	Leu	Glu	Leu
65					70					75					80
Gly	Asp	Asp	Arg	Met	Arg	Arg	Leu	Gln	Leu	Ala	Ala	Arg	Arg	Asn	Lys
				85					90					95	
Ile	Ala	Leu	Val	Met	Gly	Tyr	Ser	Glu	Arg	Glu	Ala	Gly	Ser	Arg	Tyr
			100					105					110		
Leu	Ser	Gln	Val	Phe	Ile	Asp	Glu	Arg	Gly	Glu	Ile	Val	Ala	Asn	Arg
		115					120					125			
Arg	Lys	Leu	Lys	Pro	Thr	His	Val	Glu	Arg	Thr	Ile	Tyr	Gly	Glu	Gly
	130					135					140				
Asn	Gly	Thr	Asp	Phe	Leu	Thr	His	Asp	Phe	Ala	Phe	Gly	Arg	Val	Gly
145					150					155					160
Gly	Leu	Asn	Cys	Trp	Glu	His	Phe	Gln	Pro	Leu	Ser	Lys	Phe	Met	Met
			165						170					175	
Tyr	Ser	Leu	Gly	Glu	Gln	Val	His	Val	Ala	Ser	Trp	Pro	Ala	Met	Ser
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Pro	Leu	Gln	Pro	Asp	Val	Phe	Gln	Leu	Ser	Ile	Glu	Ala	Asn	Ala	Thr
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Val	Thr	Arg	Ser	Tyr	Ala	Ile	Glu	Gly	Gln	Thr	Phe	Val	Leu	Cys	Ser
	210					215					220				
Thr	Gln	Val	Ile	Gly	Pro	Ser	Ala	Ile	Glu	Thr	Phe	Cys	Leu	Asn	Asp
225					230					235					240
Glu	Gln	Arg	Ala	Leu	Leu	Pro	Gln	Gly	Cys	Gly	Trp	Ala	Arg	Ile	Tyr
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Gly	Pro	Asp	Gly	Ser	Glu	Leu	Ala	Lys	Pro	Leu	Ala	Glu	Asp	Ala	Glu
			260					265					270		
Gly	Ile	Leu	Tyr	Ala	Glu	Ile	Asp	Leu	Glu	Gln	Ile	Leu	Leu	Ala	Lys
		275					280					285			
Ala	Gly	Ala	Asp	Pro	Val	Gly	His	Tyr	Ser	Arg	Pro	Asp	Val	Leu	Ser
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Val	Gln	Phe	Asp	Pro	Arg	Asn	His	Thr	Pro	Val	His	Arg	Ile	Gly	Ile
305					310					315					320

Asp Gly Arg Leu Asp Val Asn Thr Arg Ser Arg Val Glu Asn Phe Arg
 325 330

Leu Arg Gln Ala Ala Glu Gln Glu Arg Gln Ala Ser Lys Arg Leu Gly
 340 345 350

Thr Lys Leu Phe Glu Gln Ser Leu Leu Ala Glu Glu Pro Val Pro Ala
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Lys

<210> 6
 <211> 27
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:Primer

<400> 6
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<210> 7
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Primer

<400> 7
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 28

<210> 8
 <211> 31
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:Primer

<400> 8
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<210> 9
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:Primer

<400> 9
 ttatggctac tttgctggga ccg
 23

<210> 10
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 10
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<210> 11
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 11
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<210> 12
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 12
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<210> 13
<211> 1110
<212> DNA
<213> Acidovorax facilis

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cgtggcgaga tcgttgccaa tcggcgcaag ctgaagccca cacacgttga gcgtacgatc
420
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480

ggattgaact gctgggaaca tttccaaccg ctcagcaagt tcatgatgta cagcctcggg
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 720
 gaacagcgcg cactgttgcc gcaaggatgt ggctggggcg gcattttacgg cccggatgga
 780
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 840
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 960
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 1020
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 1110

<210> 14
 <211> 369
 <212> PRT
 <213> Acidovorax facilis

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 35 40 45
 Val Phe Ile Pro Gly Tyr Pro Tyr Trp Ala Trp Leu Gly Asp Val Lys
 50 55 60
 Tyr Ser Leu Ser Phe Thr Ser Arg Tyr His Glu Asn Ser Leu Glu Leu
 65 70 75 80
 Gly Asp Asp Arg Met Arg Arg Leu Gln Leu Ala Ala Arg Arg Asn Lys
 85 90 95
 Ile Ala Leu Val Met Gly Tyr Ser Glu Arg Glu Ala Gly Ser Arg Tyr
 100 105 110
 Leu Ser Gln Val Phe Ile Asp Glu Arg Gly Glu Ile Val Ala Asn Arg
 115 120 125
 Arg Lys Leu Lys Pro Thr His Val Glu Arg Thr Ile Tyr Gly Glu Gly
 130 135 140
 Asn Gly Thr Asp Phe Leu Thr His Asp Phe Ala Phe Gly Arg Val Gly
 145 150 155 160
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 Tyr Ser Leu Gly Glu Gln Val His Val Ala Ser Trp Pro Ala Met Ser

[illegible]

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120
ctatgacgtc tactccatac tttcgcaaga aaaagggggg gaaatttttc attccccaat
180
tattagggag atcgggtctaa tagtaaaggg caaaccttga ttttttatta ggctagatgg
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540

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gcgctatctg 720	agccaggtgt	tcatcgacga	gcgtggcgag	atcgttgcca	atcggcgcaa
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gcacgcgcgt 1620	cgcgtgagat	ttgcgtcaga	gcggacattc	aagttgtgtg	gcaaggtcgt
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<210> 16
<211> 1110
<212> DNA
<213> Artificial Sequence
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120
gcctctttga tcgctttccc agaagttttc attccagggt acccatactg ggcttggtt
180
ggtgacgtta agtactcttt gtcctttact tccagatata acgagaactc tttggagtt
240
ggtgacgaca gaatgcgtag actgcaattg gctgcccgtg gaaacaaaat tgctttggtc
300
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atgggttatt 360	ccgagagaga	agctggatct	cgttacttgt	cccaagtctt	catcgacgag
agaggtgaga 420	ttgttgcaaa	tcgtcgtaa	ttgaagccaa	ctcacgttga	gcgtaccatc
tacggagaag 480	gtaacggaac	cgattttctg	actcacgact	tcgccttcgg	aagagttggg
ggattgaact 540	gttgggaaca	tttccaacct	ctgtctaagt	tcatgatgta	ctccttgggt
gagcaagtcc 600	acgttgcttc	ttggccagct	atgtcccctc	ttcagccaga	tgttttccaa
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<210> 17

<212> DNA

<220>

<400> 17

<210> 18

<212> DNA

<220>

<400> 18

<210> 19

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:Synthetic
 oligonucleotide

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 gatctcgtaa cttgtcccaa gtcttcacg
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 <210> 20
 <211> 90
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:Synthetic
 Oligonucleotide

 <400> 20
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 ttcggaagag ttggtggatt gaactgttgg
 90

 <210> 21
 <211> 90
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 21
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 catcgaagcc aacgccaccg tcaccagatc
 90

 <210> 22
 <211> 90
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

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 gatgtggttg ggcaagaatt tacggtccag
 90

 <210> 23
 <211> 90

<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 23

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cactactcca gacctgacgt cttgtccgtc
90

<210> 24

<211> 90

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

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gcaggagaga caggcttcta agagacttgg
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<210> 25

<211> 84

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 25

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agttccaagt ctcttagaag cctg
84

<210> 26

<211> 90

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 26

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ggtcgaactg gacggacaag acgtcaggtc
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<210> 27

<211> 90

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:Synthetic
 oligonucleotide

 <400> 27
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 tcagatccat ctggaccgta aattcttgcc
 90

 <210> 28
 <211> 90
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:Synthetic
 oligonucleotide

 <400> 28
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 gatggcgtag gatctggtga cggtggcggt
 90

 <210> 29
 <211> 90
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:Synthetic
 oligonucleotide

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 90

 <210> 30
 <211> 90
 <212> DNA
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 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

 <400> 30
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 90

 <210> 31
 <211> 90

<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<400> 31

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<210> 32

<211> 90

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<220>

<400> 32

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